



6525018

1/12

Title: INTESTINAL TREFOIL PROTEINS

Applicant(s): Daniel K. Podolsky

Filing Date: May 17, 1999

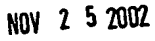
Serial No.: 09/313,434

Page 1 of 12

Customer No.: 21559

FIG. 1

gaagtttgcg tgctgcc	17
atg gag acc aga gcc ttc tgg ata acc ctg ctg gtc ctg gtt	62
gct ggg tcc tcc tgc aaa gcc cag gaa ttt gtt ggc cta tct cca	107
agc caa tgt atg gcg cca aca aat gtc agg gtg gac tgt aac tac	152
ccc act gtc aca tca gag cag tgt aac aac cgt ggt tgc tgt ttt	197
gac tcc agc atc cca aat gtg ccc tgg tgc ttc aaa cct ctg caa	242
gag aca gaa tgt aca ttt	260
tgaagctgtc caggctccag gaaggagct ccacaccctg gactcttgct	310
gatggtagtg gcccagggtgta acactcaccct ctgatctgct ccctcgcgcc	360
ggccaatata ggagctggga gtccagaaga ataaagacct tacagtcagc	410
acaaggctgt tctaattgcg g	431



Met	Glu	Thr	Arg	Ala	Phe	Trp	Ile	Thr	Leu	Leu	Val	Leu	Val
									10	15			
5													
Ala	Gly	Ser	Ser	Cys	Lys	Ala	Gln	Glu	Phe	Val	Gly	Leu	Ser
									25	30			
20													
Ser	Gln	Cys	Met	Ala	Pro	Thr	Asn	Val	Arg	Val	Asp	Cys	Asn
									40	45			
35													
Pro	Thr	Val	Thr	Ser	Glu	Gln	Cys	Asn	Asn	Arg	Gly	Cys	Cys
									55	60			
50													
Asp	Ser	Ser	Ile	Pro	Asn	Val	Pro	Trp	Cys	Phe	Lys	Pro	Leu
									70	75			
65													
Glu	Thr	Glu	Cys	Thr	Phe								
80													

```

rITF  FDSSIPNVPWCFK-----PLQ-----ETECT-----F
      ||| |||||
pS2   FDDTVRGVPWCFY-----PNTIDVPPEEECE-----F
      ||| |||||
pSP    FDSQVPGVPWCFK-----PLP-----AQESEECVMEV

```

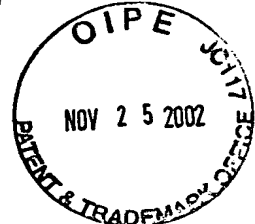


FIG. 4A

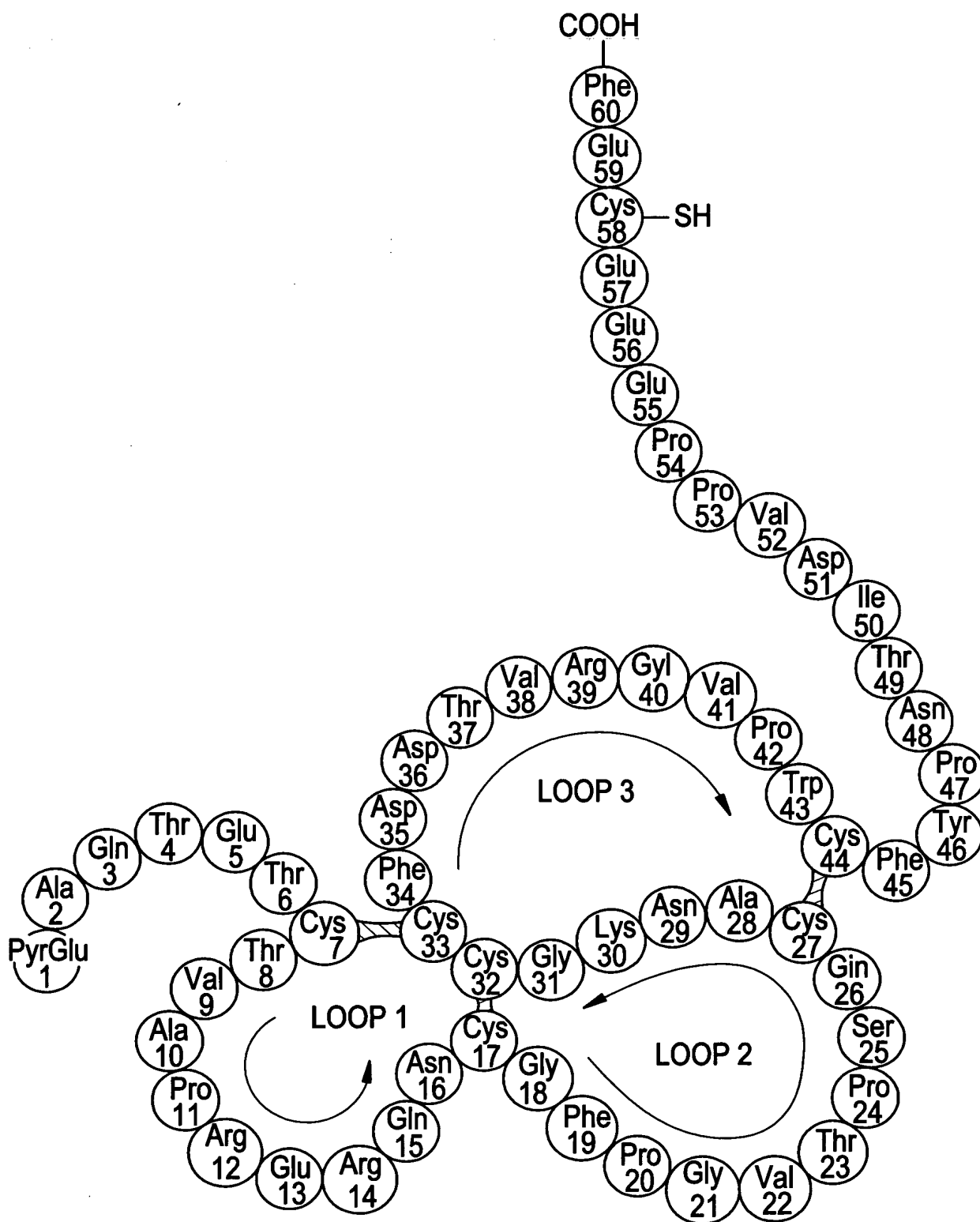


FIG. 4B

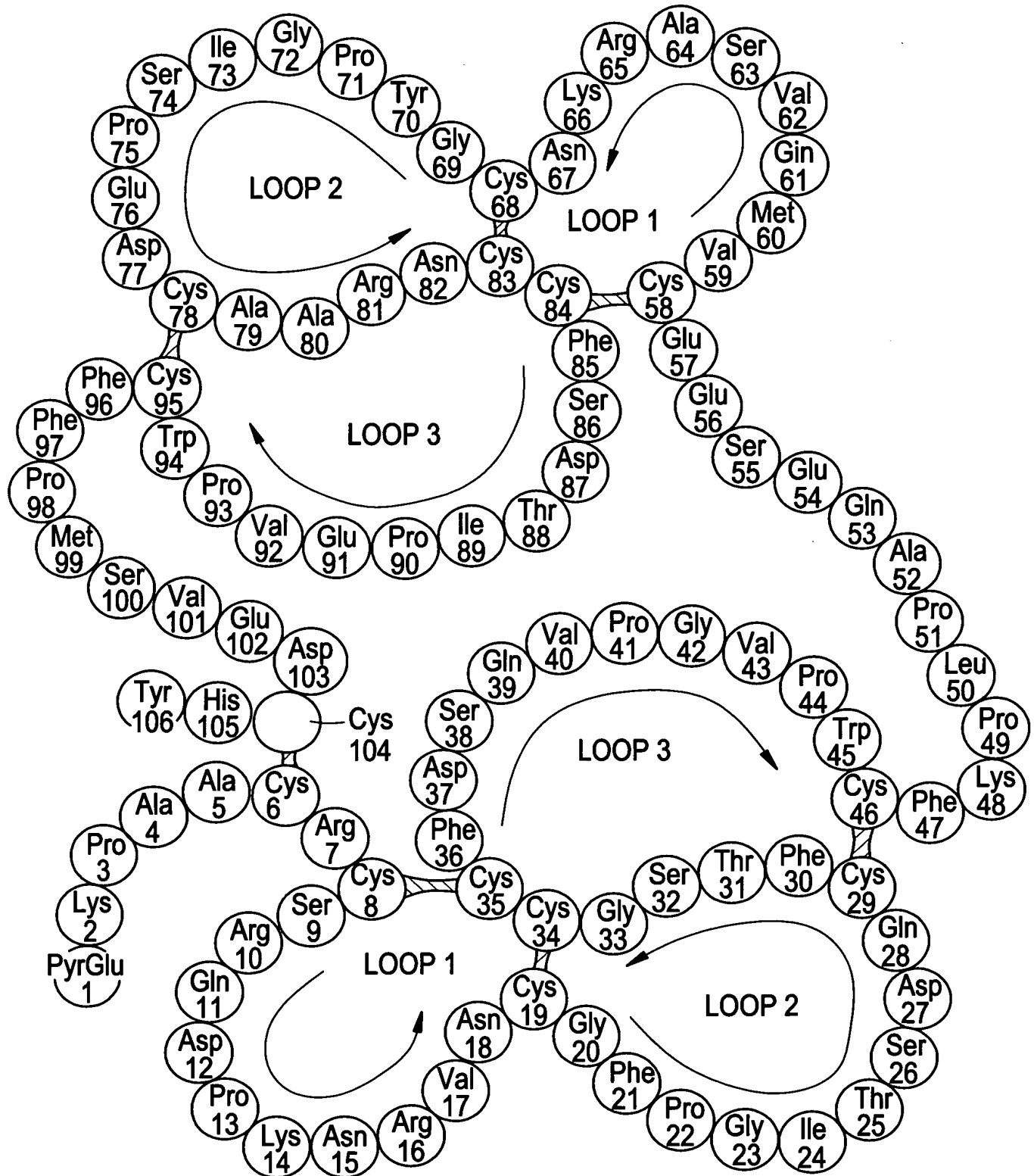




FIG. 5

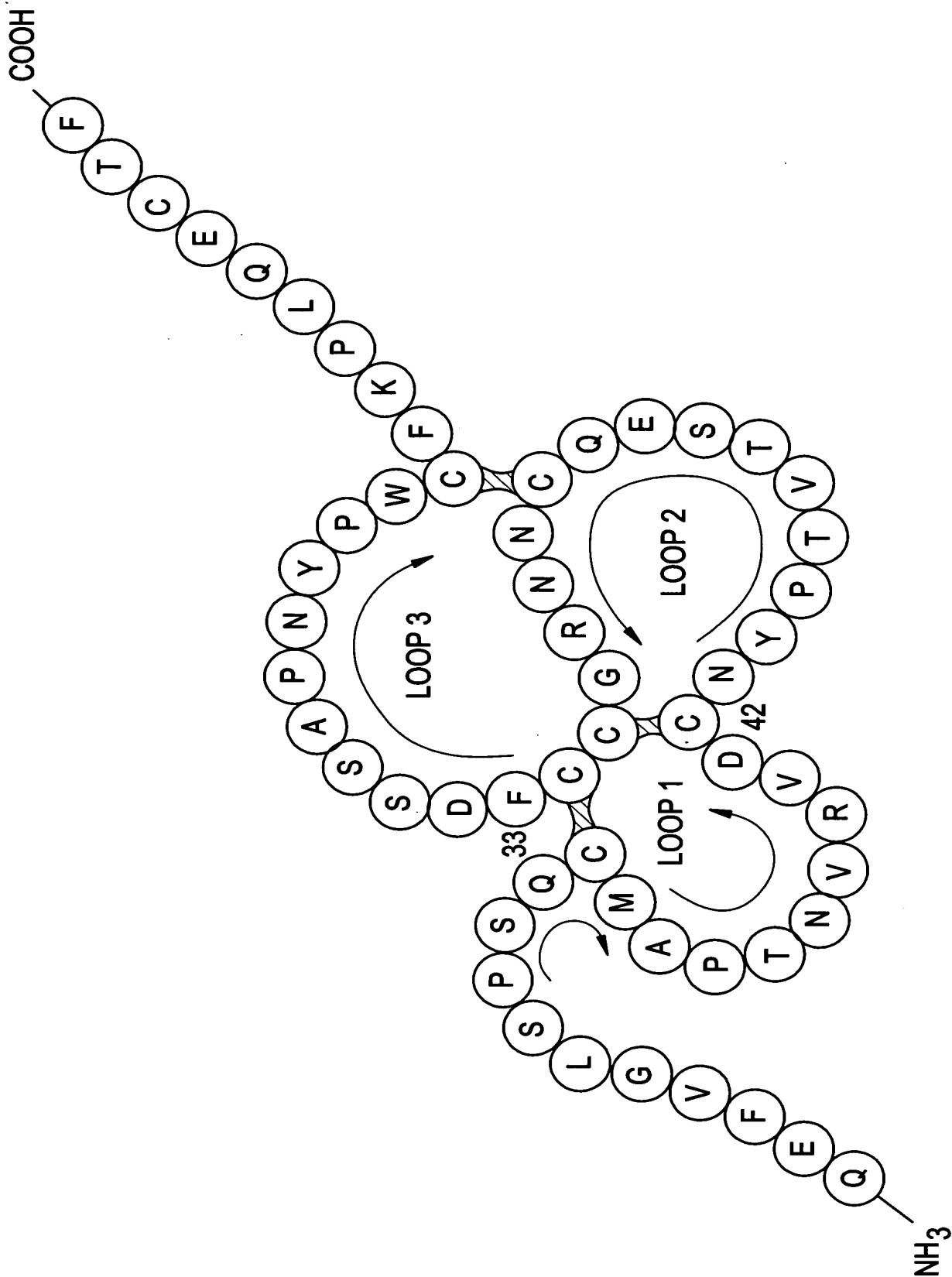




FIG. 6

g atg ctg ggg ctg gtc ctg gcc ttg ctg tcc tcc agc tct gct gag gag 49
Met Leu Gly Leu Val Leu Ala Leu Ser Ser Ser Ser Ala Glu Glu 15
1 5 10 15

tac gtg ggc ctg tct gca aac cag tgt gcc gtg ccg gcc aag gac agg 97
Tyr Val Gly Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg 30
20 25 30

gtg gac tgc ggc tac ccc cat gtc acc ccc aag gag tgc aac aac cgg 145
Val Asp Cys Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg 45
35 40 45

ggc tgc tgc ttt gac tcc agg atc cct gga gtg cct tgg tgt ttc aag 193
Gly Cys Cys Phe Asp Ser Arg Ile Pro Gly Val Pro Trp C P K 60
50 55 60

ccc ctg cag gaa gca gaa tgc acc ttc tgaggcacct ccagctgccc 243
P L Q E A E C T F 70
65 70

ctgggatgca ggctgagcac ccttgccccgg ctgtgattgc tgccaggcac tgttcatctc 303
agtttttctg tccctttgct cccggcaagc tttctgctga aagttcatat ctggagcctg 363
atgtcttaac gaataaaggc cccatgctcc acccgaaaaa 403



FIG. 7

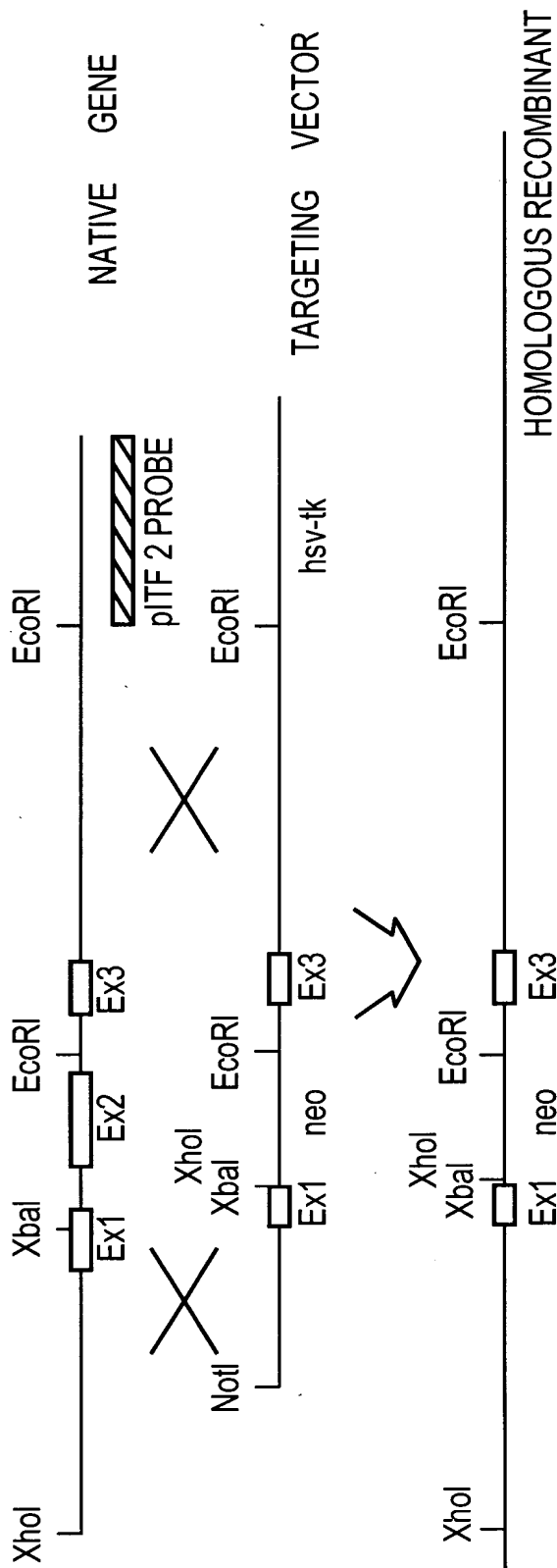




FIG. 8

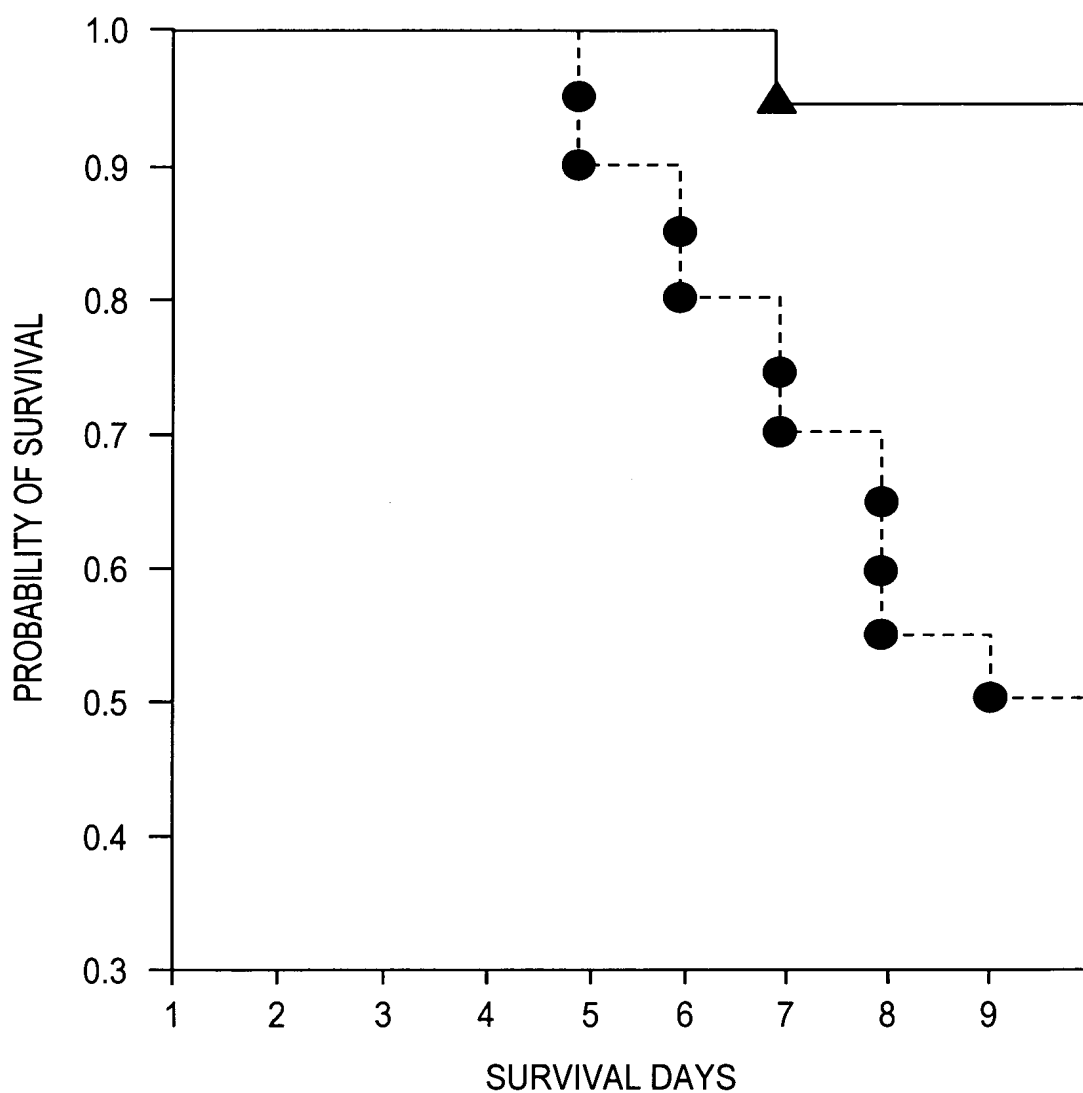




FIG. 9

```
gag aaa ccc tcc ccc tgc cag tgc tcc agg ctg agc
Glu Lys Pro Ser Pro Cys Gln Cys Ser Arg Leu Ser
1 5 10

ccc cat aac agg acg aac tgc ggc ttc cct gga atc acc agt gac cag
Pro His Asn Arg Thr Asn Cys Gly Phe Pro Gly Ile Thr Ser Asp Gln
15 20 25

tgt ttt gac aat gga tgc tgt ttc gac tcc agt gtc act ggg gtc ccc
Cys Phe Asp Asn Gly Cys Cys Phe Asp Ser Ser Val Thr Gly Val Pro
30 35 40

tgg tgt ttc cac ccc ctc cca aag caa gag tcg gat cag tgc gtc atg
Trp Cys Phe His Pro Leu Pro Lys Gln Glu Ser Asp Gln Cys Val Met
45 50 55 60

gag gtc tca gac aga aga aac tgt ggc tac ccg ggc atc agc ccc gag
Glu Val Ser Asp Arg Arg Asn Cys Gly Tyr Pro Gly Ile Ser Pro Glu
65 70 75

gaa tgc gcc tct cgg aag tgc tgc ttc tcc aac ttc atc ttt gaa gtg
Glu Cys Ala Ser Arg Lys Cys Cys Phe Ser Asn Phe Ile Phe Glu Val
80 85 90

ccc tgg tgc ttc ttc ccg aac tct gtg gaa gac tgc cat tac
Pro Trp Cys Phe Phe Pro Asn Ser Val Glu Asp Cys His Tyr
95 100 105
```

FIG. 10

```

atccctgact cggggtcgcc ttgggagcag agaggaggca atg gcc acc atg gag      55
Met Ala Thr Met Glu      1      5

aac aag gtg atc tgc gcc ctg gtc ctg gtg tcc atg ctg gcc ctg ggc      103
Asn Lys Val Ile Cys Ala Leu Val Ser Met Leu Ala Leu Gly      15      20

acc ctg gcc gag gcc cag aca gag acg tgt aca gtg gcc ccc cgt gaa      151
Thr Leu Ala Glu Ala Gln Thr Glu Thr Cys Thr Val Ala Pro Arg Glu      25      30      35

aga cag aat tgt ggt ttt cct cct ggt gtc acg ccc tcc cag tgt gca aat      199
Arg Gln Asn Cys Gly Phe Pro Gly Val Thr Pro Ser Gln Cys Ala Asn      40      45      50

aag ggc tgc tgt ttc gac gac acc gtt cgt ggg gtc ccc tgg tgc ttc      247
Lys Gly Cys Cys Phe Asp Asp Thr Val Arg Gly Val Pro Trp Cys Phe      55      60      65

tat cct aat acc atc gac gtc cct cca gaa gag gag tgt gaa ttt      292
Tyr Pro Asn Thr Ile Asp Val Pro Pro Glu Glu Cys Glu Phe      70      75      80

tagacacttc tgcagggtac tgcctgcac ctgacgggggt gccgtcccca gcacggtgat      352
tagtcccaga gctcggtgc cacctccacc ggacacctca gacacgcttc tgcagctgtg      412
cctcgggtca caacacagat tgactgctct gactttgact actcaaaatt ggcctaaaaa      472
ttaaagaga tcgatattaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa      532
aaaaaaaaa      540

```



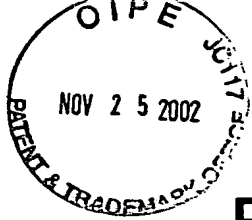


FIG. 11

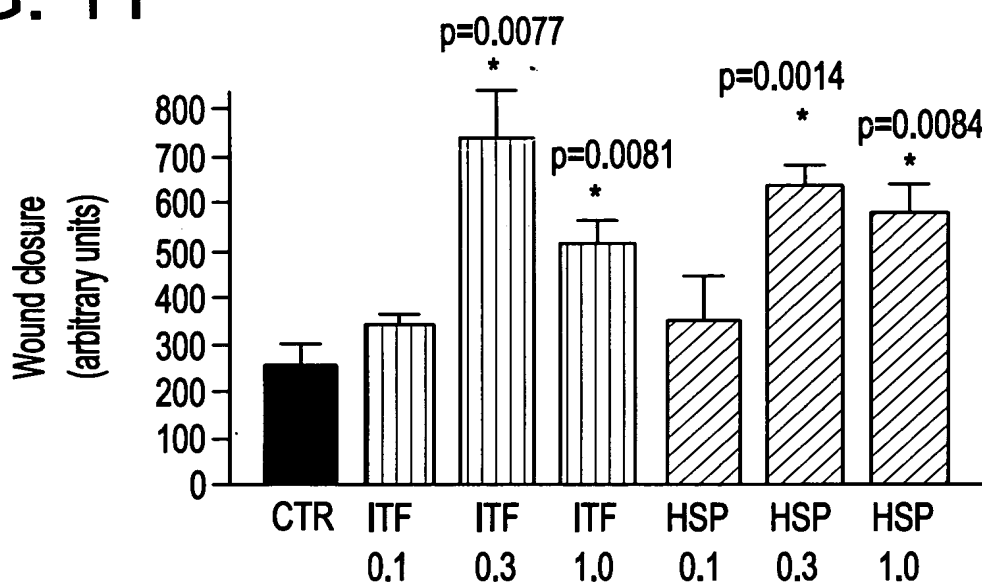


FIG. 12

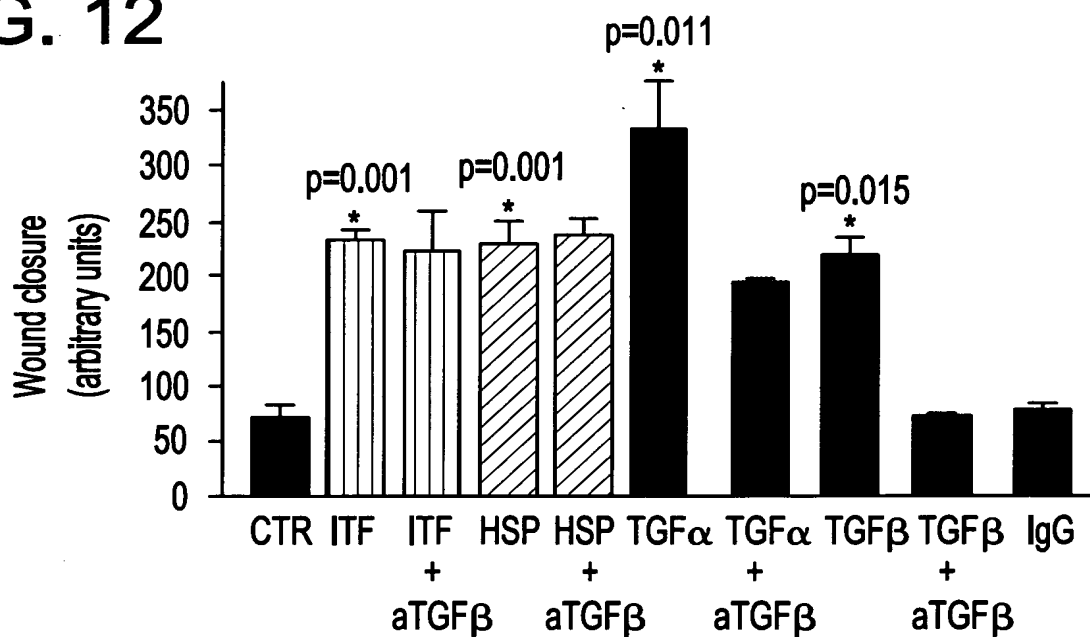


FIG. 13

